

SUBJECT: ORD: THE PATH FORWARD

FROM: Paul T. Anastas  
Assistant Administrator

TO: ORD ALL

In the months since I was first nominated to serve as your Assistant Administrator, and especially in the past 60 days since my swearing-in, I have spent my time seeking out the best perspectives on ORD's great potential and the opportunities we have to realize that potential. These perspectives have been important in influencing my thinking. While I believe it is important to move ahead with several key elements of the Transformation Initiative – integrated multidisciplinary research, focus on problems of broad national interest, and a closer interaction with our program and regional partners – this alone is not sufficient to elevate our work to the next level if we are to truly address the complex environmental problems of the 21<sup>st</sup> century. My vision for the future of ORD includes a recognition that the goal of sustainability is our “true north,” that scientific and technological innovation is essential to the success of our mission, that we need to couple our excellence in problem assessment with an equal excellence in solving problems, and that we must act with a sense of urgency. I am confident that ORD has the expertise, motivation, and commitment to carry out this vision.

My confidence comes from the fact that the most important and useful comments I received are those from the people of ORD in response to my request for thoughts on our future. I have read each one, and they have significantly informed my thinking. I have also listened to other people both inside and outside of EPA. What has been most remarkable to me is the commonality of the themes I heard. These themes are simple and powerful.

From ORD staff, I heard a deep commitment to our shared mission; a shared feeling that we have creative, intelligent, and capable people who need to be valued and fully engaged; and that with a clear enunciation of our path forward, there is nothing we can't achieve together.

From our Program and Regional partners, I heard that ORD is essential to the success of EPA's mission, that they want their partnership with ORD to be a continual dialogue rather than an occasional event; that they want to be heard when presenting their needs and are willing to listen to new ideas from ORD; and that they need ORD to be rapid, relevant, and responsive.

From our external partners, I heard that they need to know more about the work of ORD and need ORD to help them in their efforts to protect human health and the environment.

They also see ORD playing an important role in addressing today's environmental and health issues as well as foreseeing and preventing tomorrow's.

From these themes, I have laid out a set of principles to guide our work as we go forward providing the scientific and technological basis for advancing EPA's mission to protect human health and the environment.

## PRINCIPLES

- Sustainability – Attaining a society that can meet its needs while preserving the ability of future generations to meet their needs is our primary goal. Our solution to a problem must not only solve the problem at hand, but it also must not create a new problem as a result. As stated earlier, sustainability must be our “true north.”
- Solution-Oriented – Our work must inform, enable, and empower sustainable solutions to the challenges posed to human health and the environment. Understanding problems is important and essential; however, the only reason to deeply understand a problem is to empower its solution. A diagnosis alone is not a cure, and we must be in the business of facilitating solutions to the environmental problems we face.
- Timeliness – While exact timeframes will differ based on the nature of the scientific challenge to be confronted, our work must be conducted with a sense of urgency. Our mission is too important to be delayed.
- Responsiveness – Working closely with EPA's Programs, Regions, and beyond is essential to identifying what is needed and delivering on those needs.
- Relevance – Excellence that is not relevant to EPA's core mission is not excellent. Relevance to mission is one key component of how ORD defines excellence.
- Integrity – Firm adherence to intellectual honesty and the responsible conduct of research is the foundation of science. That which compromises the integrity of our work compromises our science and our mission.

In addition to these principles, there are key characteristics that must guide our work across every laboratory, center, and office in ORD. These apply to people in all roles across our organization – technical, administrative, and management. These themes are not necessarily new and have been illustrated by forward-thinking individuals and groups in ORD for years. They were also essential elements of the good work of the Transformation Task Force and were cited by numerous ORD staff in the comments submitted to me in the past weeks. They provide a useful framework as we move forward and need to be systematically incorporated into our work.

- Integrated – Because the nature of environmental and human health issues has become more complex, our approaches must also change to be able to address these problems. Only by implementing systems thinking and integrative approaches to complement our traditional single discipline approaches, will we be better able to solve these challenging problems.

- Transdisciplinary – In all aspects of our work, from problem identification and definition, to research design and conduct, and through to implementation, we must involve the widest span of disciplines to bring different perspectives to the table.
- Innovative – The major challenges to sustainability, human health, and the environment that we face are not incremental problems, and they do not lend themselves to incremental solutions. Addressing climate change, water quality and quantity, ubiquitous toxics, ecosystem degradation, will require innovation. ORD must help drive that innovation, because in its absence, our mission cannot be achieved.
- Catalytic – EPA's efforts alone will not be nearly enough to address the challenges to human health and the environment we face. This is why we need to act catalytically and spark further action among others. In all of our projects, programs, grants, assessments, and reports, we need to always be thinking, "How do these efforts inform and empower the broader collection of people who seek to protect the environment?"
- Visible – Great work, done invisibly, cannot have an impact. Communication is not merely transmitting our work; it is an essential part of our work. Communication is essential in the design, definition, conduct, transfer, and implementation of the work we do if we are to have an impact.

#### OUR WORK

Recently, Administrator Jackson outlined her seven key themes that focus the work of the EPA. While there have been questions about how to define what are "problems of broad national significance", I believe that the Administrator's priorities provide the framework for ORD's work. While it is difficult to imagine work we seek to do that is not covered by the Administrator's priorities, our greater challenge is to ensure that we support these priorities effectively. Not every approach to clean water, or climate change action, or reducing air toxics is sustainable. Some approaches may accomplish many goals simultaneously and synergistically, while others may be more fragmented and inefficient. The design of our approaches to problem solving with our partners requires the best of our intellect and ingenuity. I am confident that we in ORD are up to the task.

#### TIME TO ACT

There has been much thoughtful discussion and intense planning in ORD over the course of the past 18 months, and the good work is a tribute to all involved in the process. I am appreciative of this body of work. In particular I thank the ORD staff who contributed to the various Transformation efforts, especially the Conclave, for their thoughtful work and useful products. This process has laid the groundwork for a new and more effective ORD. Now, however, is the time for action and implementation. And so, as we go forward, we will take many of the good ideas developed from this process and enhance them to ensure that innovation and sustainability feature prominently. The following are the first set of priority areas that I believe we need to pursue as "One ORD."

1. To ensure close and continual dialogue with our Program and Regional partners, I will be tasking the National Program Directors, together with the Office of Science Policy, to develop mechanisms for engagement of these partners in time for the fiscal year 2012 ORD research program planning and on into the future.
2. ORD will be fully engaged in Integrated Transdisciplinary Research (ITR), which is defined as the process to develop sustainable solutions to environmental problems by engaging partners who transcend traditional scientific disciplines throughout each stage of the research process.
  - I will be asking a reinvigorated Science Council to craft a research program that addresses current and future environmental issues using the above principles and ITR.
  - I will also be tasking the Management Council to address a broad set of implementation issues, engaging people both in and outside of ORD, to enable us to move forward in an effective manner. We need to quickly put in place the necessary systems, policies, and procedures to encourage and support ITR. A key component of this will be to incorporate enhanced productivity, performance, and accountability to create an environment where our people can be successful.
  - In time for the FY2012 budgeting process, we will be focusing on encouraging ITR wherever possible. We will also use this approach in our FY2011 programs as appropriate. It is recognized and respected that not all of our research will fit this model; however, a clear future trend is the need for ITR in the work of ORD.
3. I will be looking to encourage development of sustainable technological innovations by supporting the following:
  - Internal entrepreneurial research projects through an internal competitive seed grant program;
  - External partnerships for innovation by using our grants, cooperative agreements and Cooperative Research and Development Agreement (CRADA) mechanisms; and,
  - Catalyzing the private sector to develop approaches to facilitate sustainable technology implementation across the technology life-cycle.
4. As an office, we need to effectively communicate the story of the good work we do and more importantly, the impact it has made. Therefore, we need to enhance our capability of quantifying and tracking the impact of ORD's work products. I will support efforts to communicate our research in a way that resonates with the American people. To communicate this message as "One ORD," I have tasked our Communication Team across ORD to work with the Executive Council to systematize the identification, inventorying, collection, translation, and dissemination of the good news of ORD's contributions and impact. We can declare that our communication efforts have been successful when ORD is known as the inventive, problem-solving, world-class research institution I know it to be.

## A BEGINNING

This memo should be viewed as a beginning. In the coming weeks and months, I will be providing further elucidation of the four initial priorities, as well as outlining additional specific actions to be taken to move us further down the path in constructive and tangible ways. As we take each step, I will look to the wisdom and experience within ORD as I have thus far.

Together, I have no doubt that we can attain the fundamental positive impacts that our shared mission requires of each of us, and I look forward to working with you on this path forward.